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TCS 8038/65
M/EB 149/65
5 May 1965
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25X1A

MEMORANDUM FOR: Chief, Defensive Systems Division, OSI

ATTENTION: [redacted] Air Defense Branch

THROUGH: Chief, Requirements Branch, Reconnaissance Group, CGS

FROM: Chief, Photographic Intelligence Division, CIA

SUBJECT: H-Shaped Sites Kapustin Yar and Leningrad Area, USSR

REFERENCES:
(a) Requirement C-SI5-82,377
(b) CIA/PID Project 30440-5
(c) NPIC/R-810/64
(d) NPIC/R-622/64
(e) NPIC/R-322/64
(f) NPIC/R-332/63
(g) NPIC/R-193/63
25X1C (h) NPIC/R-192/63
[redacted]

25X1D

1. This memorandum is in response to your requirement dated 17 March 1965 which requests a chronology of development of the seven (7) H-shaped sites at the Kapustin Yar/Vladimirovka Missile Test Center, together with line drawings of two different type H-shaped sites and a map showing the location of all H-shaped sites at the Kapustin Yar/Vladimirovka Missile Test Center. Also requested is a line drawing of a typical deployed H-shaped site and an annotated map showing the location of the three (3) H-shaped sites in the Leningrad-Tallinn Area.

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2. A total of [redacted] KEYHOLE Missions were utilized on this project. These cover a time period from [redacted] This span of time allowed for complete photographic coverage of all H-shaped sites in both summer and winter and provided comparative quality analysis ranging from excellent to poor.

3. Two distinct types of tracking facilities, Type I and Type II, previously reported as H-shaped sites were observed at the Kapustin Yar/Vladimirovka Missile Test Center. The Type I Tracking Facilities were observed at the following locations.

SITE G-2	48-24-15N	46-14-10E
ELTON	49-15-40N	46-48-20E
GORNYY BALYKLEY	49-33-30N	45-02-00E
PALLASOVKA	50-04-00N	46-54-00E

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The Type II Tracking Facilities were observed at the following locations.

SITE G-1	48-25-00N	46-14-40E
KAMYSHIN	50-03-00N	45-15-40E
ALEKSANDROV GAY	50-10-00N	48-33-30E (See Attachments 1 and 2).

4. A typical Type I Tracking Facility at the Kapustin Yar/Vladimirovka Missile Test Center consists of a large rectangular double fenced operations area and a small support area. The operations area (See Attachment 3) contains two large radar mounds, two small radar mounds, a revetted equipment area, three probable communication/instrumentation positions, an operations support building, and a gatehouse. The radar mounds are located on the termini of a well-defined H-shaped road pattern. The support area consists of an administrative-type building, four multi-story barracks buildings, and two large and two small storage buildings.

The Gornyy Balykley Tracking Facility, located one nm west of Gornyy Balykley, is situated on open, slightly rolling terrain, approximately 300 feet above sea level. This facility is similar to the above described typical Type I Facility. The two large radar mounds and one of the two small radar mounds appear to be occupied with unidentified equipment. The revetted equipment area also appears to be occupied. The two outer probable communication/instrumentation positions appear to be slightly elevated. The inner position is not elevated and supports a small structure.

5. The following approximate orientation azimuths for the Kapustin Yar/Vladimirovka Missile Test Center Type I Tracking Facilities were determined by projecting a line perpendicular to the two large mounds and extending directly between the two small mounds.

SITE G-2	335 Degrees	25X1D
ELTON	[redacted]	
GORNYY BALYKLEY		
PALLASOVKA	360 Degrees	(See Attachment 4).

6. Deployed versions of the Type I Tracking Facilities have been observed near the Gulf of Finland at the following locations.

JOHVI	59-22-00N	27-21-00E
NARVA	59-43-30N	28-29-00E
VESKITAGUSE	58-50-00N	26-43-30E (See Attachments 5 and 6).

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These tracking facilities have certain similarities and dissimilarities to the Type I Tracking Facilities at the Kapustin Yar/Vladimirovka Missile Test Center. The deployed tracking facilities differ in the following manner: lattice towers, approximately 90 feet high, are employed in place of the large mounds found at those sites at the Test Center; the large drive-through revetment is centered directly on the cross bar of the H-shaped road pattern, the three probable communication/instrumentation positions are not utilized; the over-all shape of the fence appears to be more of a square rather than that of a rectangle used at the KY/Vlad MTC; and the support area is approximately one half the size of those at the KY/Vlad MTC.

Typical of the deployed Type I Tracking Facilities is the facility at Veskitaguse (See Attachment 7). It is situated on open, level terrain, approximately 200 feet above sea level. Unidentified equipment is located on top of the lattice towers and in the revetted equipment area. The two small-radar mounds are unoccupied. The support area contains two multi-story barracks, one storage building, and one small structure.

7. The following approximate orientation azimuths for the deployed Type I Tracking Facilities were determined by projecting a line perpendicular to the two large towers and extending directly between the small mounds.

JOHVI	[redacted]	25X1D
NARVA	135/315 Degrees	
VESKITAGUSE	220 Degrees	(See Attachment 8).

The Narva Tracking Facility appears to be a variation of the Type I Tracking Facility, having only the two lattice towers, without the two small radar positions. In determining the approximate orientation azimuth of this facility both directions were given perpendicular to the towers. A suspect Type I tracking facility was reported south of Leningrad at 59-30-20N 30-14-40E. This facility noted under construction in [redacted] was never completed and now appears to be abandoned. However, at its early stage of construction it had certain configuration similarities to the Narva Tracking Facility.

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8. Type II Tracking Facilities at the KY/Vlad MTC consist of a large rectangular double fenced operations area and a secured support area. The operations area is subdivided by an interior single fence into two sections. One section (Section A) consists of two large and four small radar mounds, a revetted equipment area, and a revetted probable control building. The other operations section

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(Section B) consists of two elevated radar positions, two non-elevated radar positions, four revetted equipment areas, four elevated probable communication/instrumentation positions, one probable communication/instrumentation control building, an operations support building, and a gatehouse. The support area consists of two multi-story barracks, 13 maintenance/storage buildings, one probable thermal plant, one probable generator building, one small motor pool, and a gatehouse.

The operations area of the Kamyshin Tracking Facility (See Attachment 9) has all the typical facility components. Each of the four small mounds within operations Section A appears to be occupied by a height finder radar and each of the two large mounds appears to be occupied by a two-reflector range-azimuth radar. The revetted equipment area contains at least two probable vans and one large piece of unidentified equipment.

One of the elevated positions and one of the non-elevated positions within operations Section B appear to support unidentified radars. Three of the revetted equipment areas appear to be occupied. The occupancy status of the probable communication/instrumentation positions is undetermined.

9. The following approximate orientation azimuths for the Type II Tracking Facilities were determined by projecting a line Perpendicular to the two large mounds and extending directly between the small mounds.

SITE G-1 KAMYSHIN ALEKSANDROV GAY	155/335 Degrees	25X1D (See Attachment 4)

10. No Type II Tracking Facilities have been observed other than those at the Kapustin Yar/Vladimirovka Missile Test Center. However, one installation adjacent to Kerstovo Airfield at 59-29-00N 28-47-30E, has a certain similarity at its present stage of construction, to the typical Type II Tracking Facilities.

11. Instrumentation Sites 10 and 11 at the KY/Vlad MTC are connected by cable to the surface-to-air missile instrumentation network. Each site is double-fenced and consists of four radar positions forming a square, three possible communication/instrumentation positions, at least two activity areas which are suspect radar positions, and at least two support/control structures. Each site lacks a well-defined road system. These two sites have certain component similarities to the Type I Tracking Facilities, However, they differ in construction timing.

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Sites 10 and 11 were present in [redacted] however the Type I and Type II Tracking Facilities at KY/Vlad MTC were absent. Chronology of development of all KY/Vlad MTC Facilities and Sites appears on Attachment 10.

12. The photo analyst on this project was [redacted] who may be contacted on extension 2079 should you have any further questions concerning this project.

13. This project is considered to be complete. 25X1A

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Enclosures: (CIA/PID/MEB-P-195/65 th[redacted]
1 - nine vugraphs (with copy 1)
2 - seven drawings
3 - one table
4 - two annotated maps
5 - one chronology

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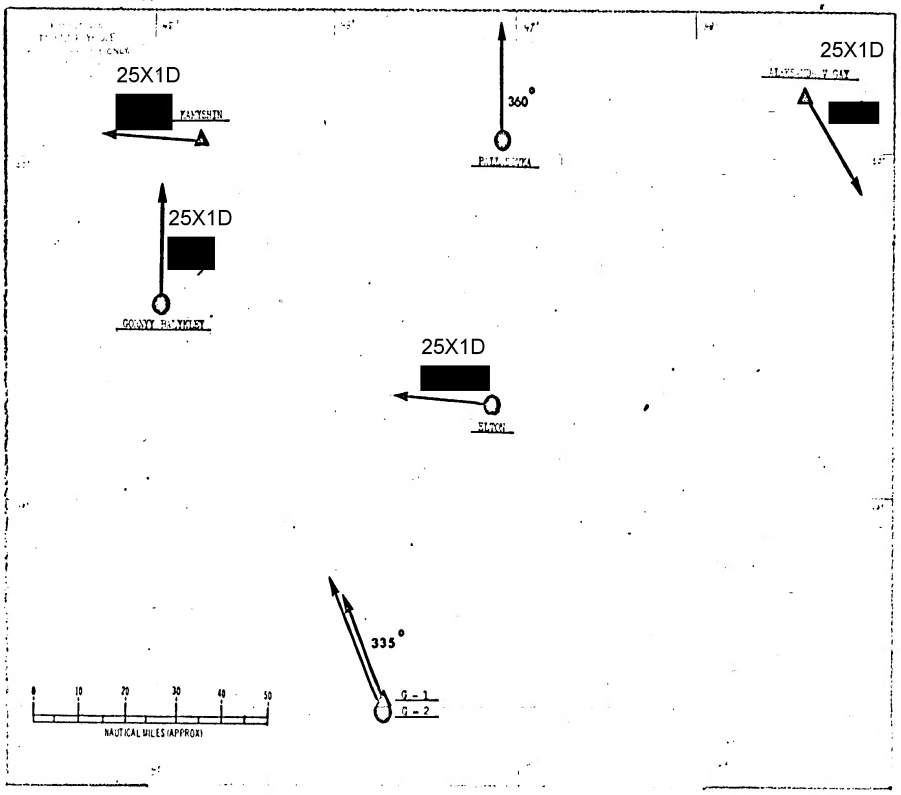

APPROXIMATE ORIENTATION AZIMUTHS TRACKING FACILITIES
KAPUSTIN YAR / VLADIMIROVKA MISSILE TEST CENTER

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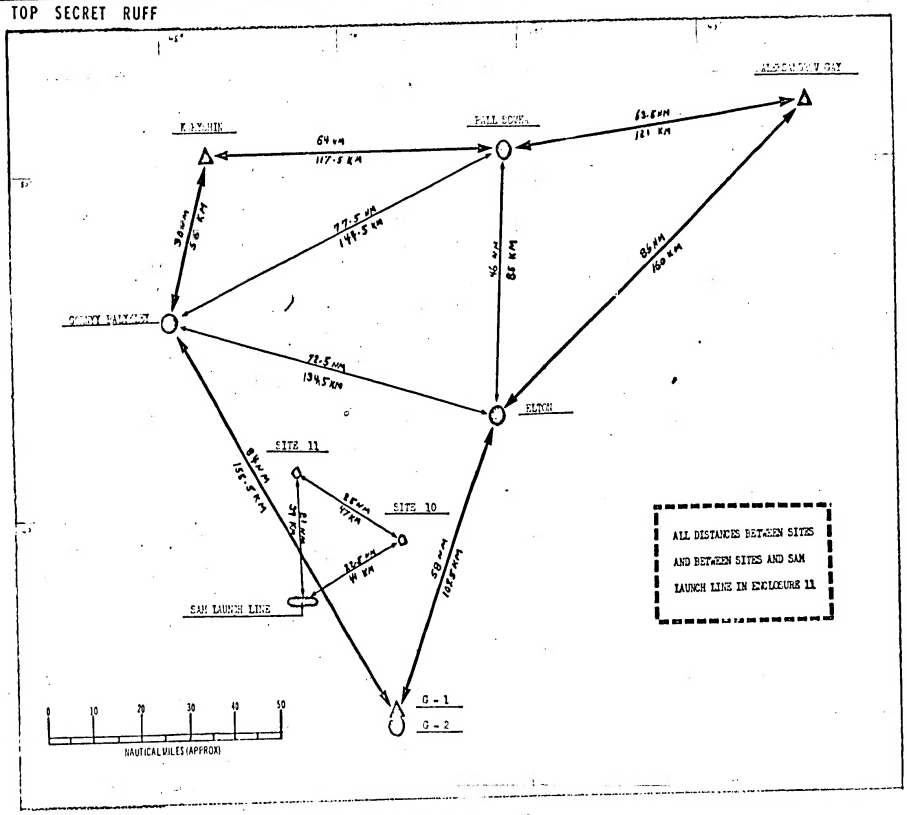

LOCATION TRACKING FACILITIES

KAPUSTIN YAR / VLADIMIROVKA MISSILE TEST CENTER

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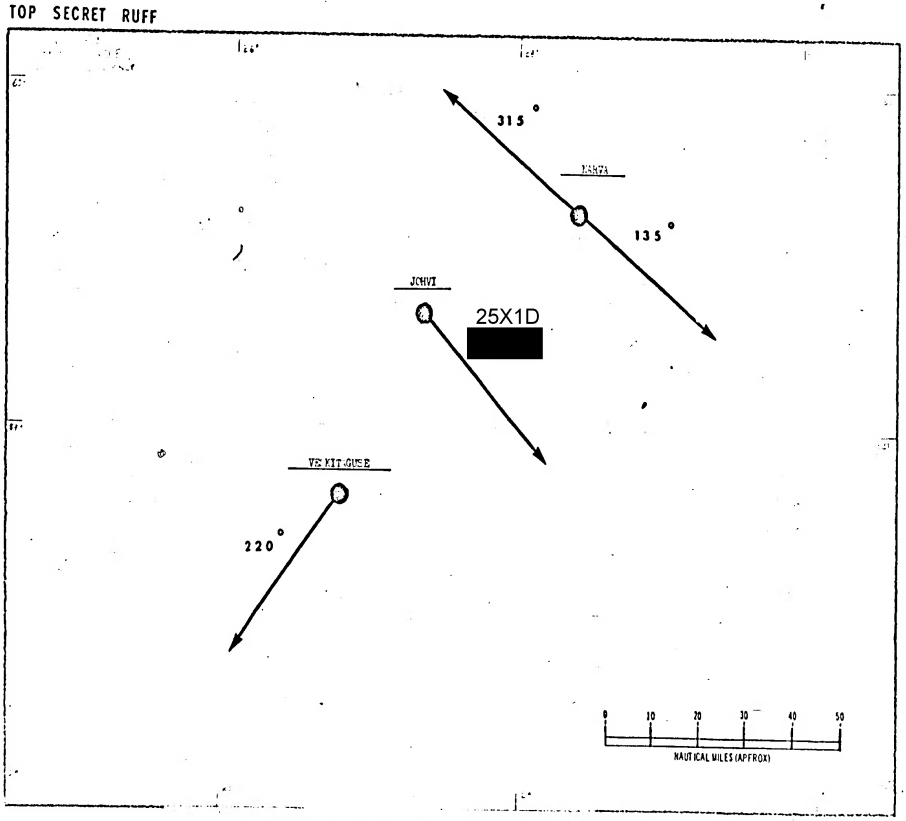

APPROXIMATE ORIENTATION AZIMUTHS TRACKING FACILITIES
GULF OF FINLAND

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Attachment B to
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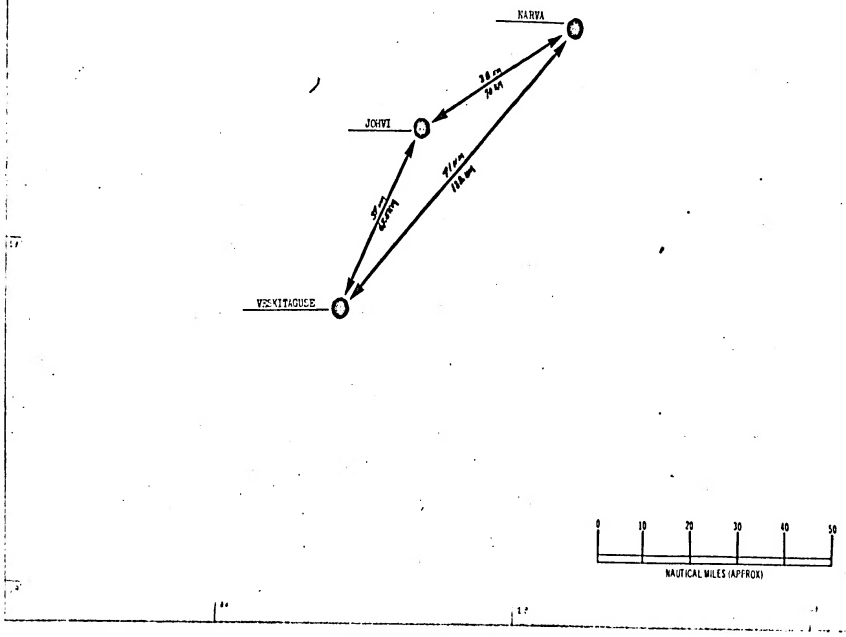

LOCATION TRACKING FACILITIES

GULF OF FINLAND

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CIA TH[illegible]-200/[illegible]
Attachment 6 to
[illegible]

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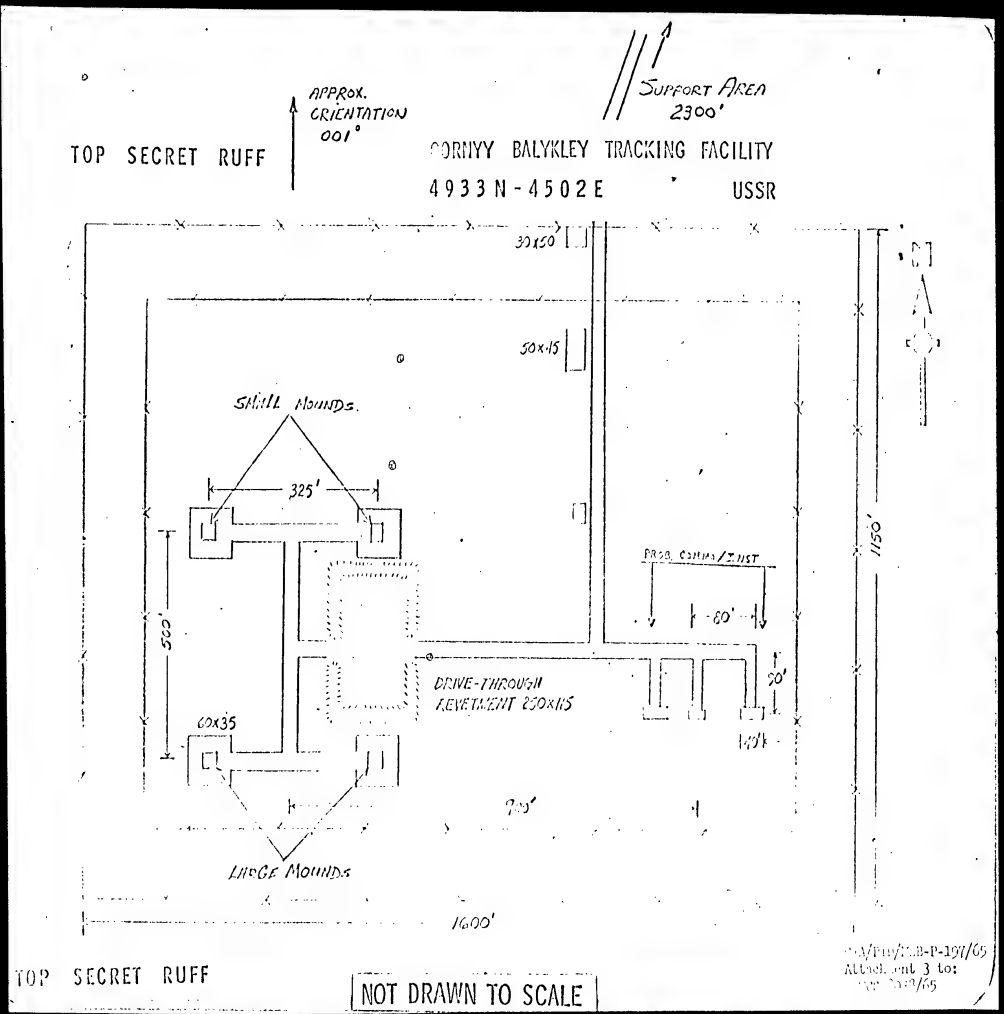

CORNYY BALYKLEY TRACKING FACILITY

4933 N - 4502 E USSR

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Attachment 3 to:

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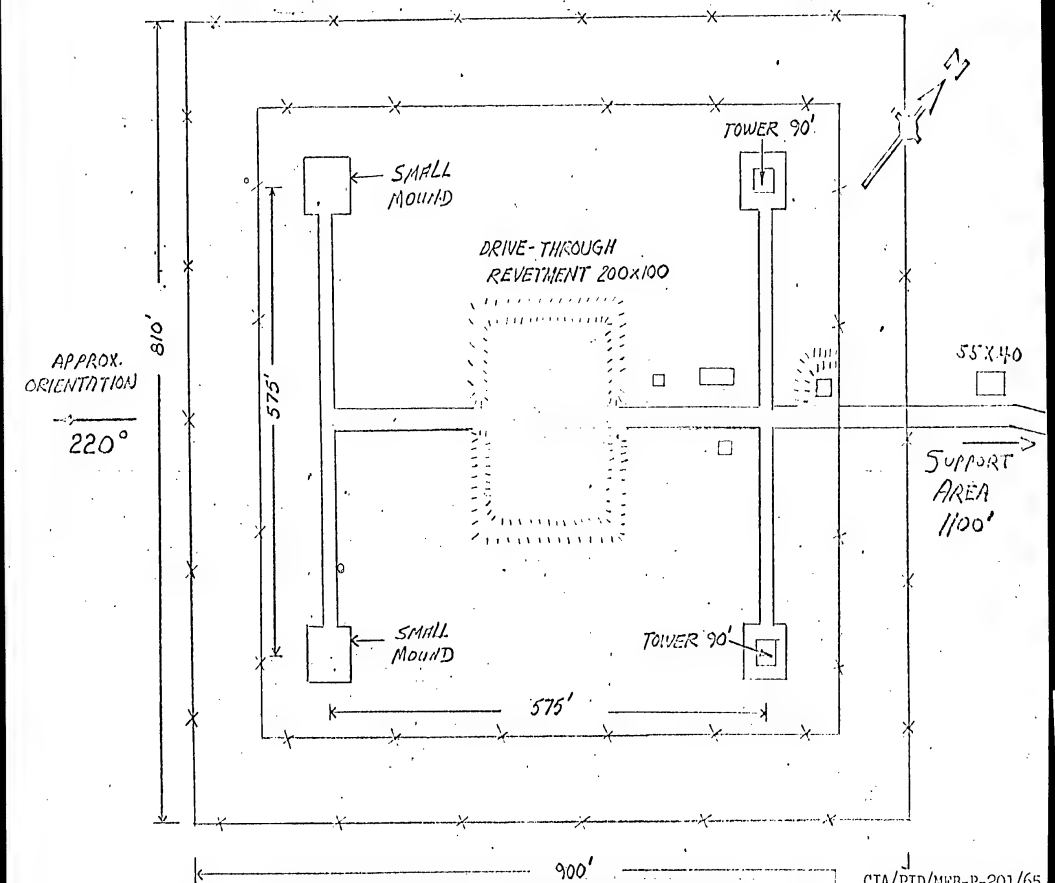
VESKITAGUSE TRACKING FACILITY

5850 N - 2647 E USSR



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CIA/PID/MEB-P-201/65
Attachment 7 to:
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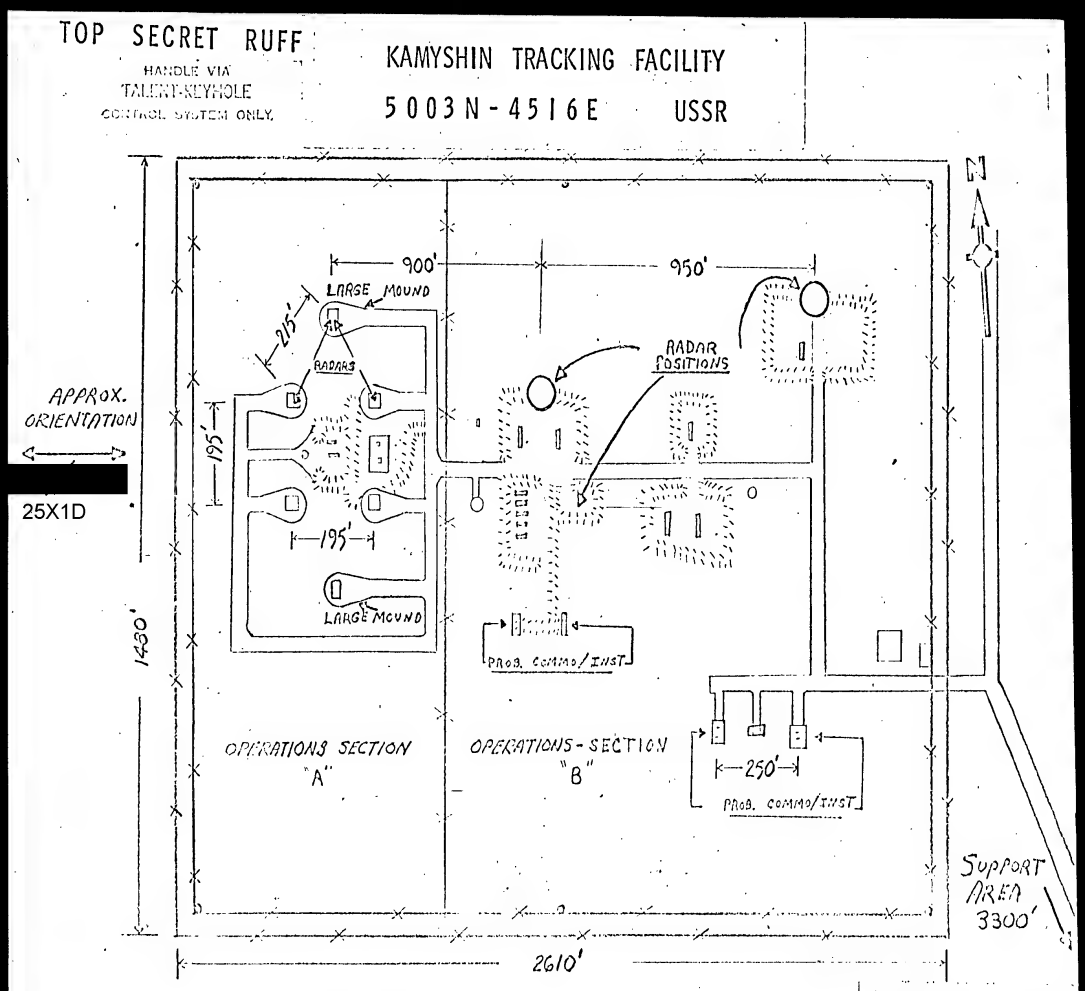
KAMYSHIN TRACKING FACILITY

5003N - 4516E USSR



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CIA/PID/MEB-P-203/65
Attachment 9 to:
TCS 8038/65

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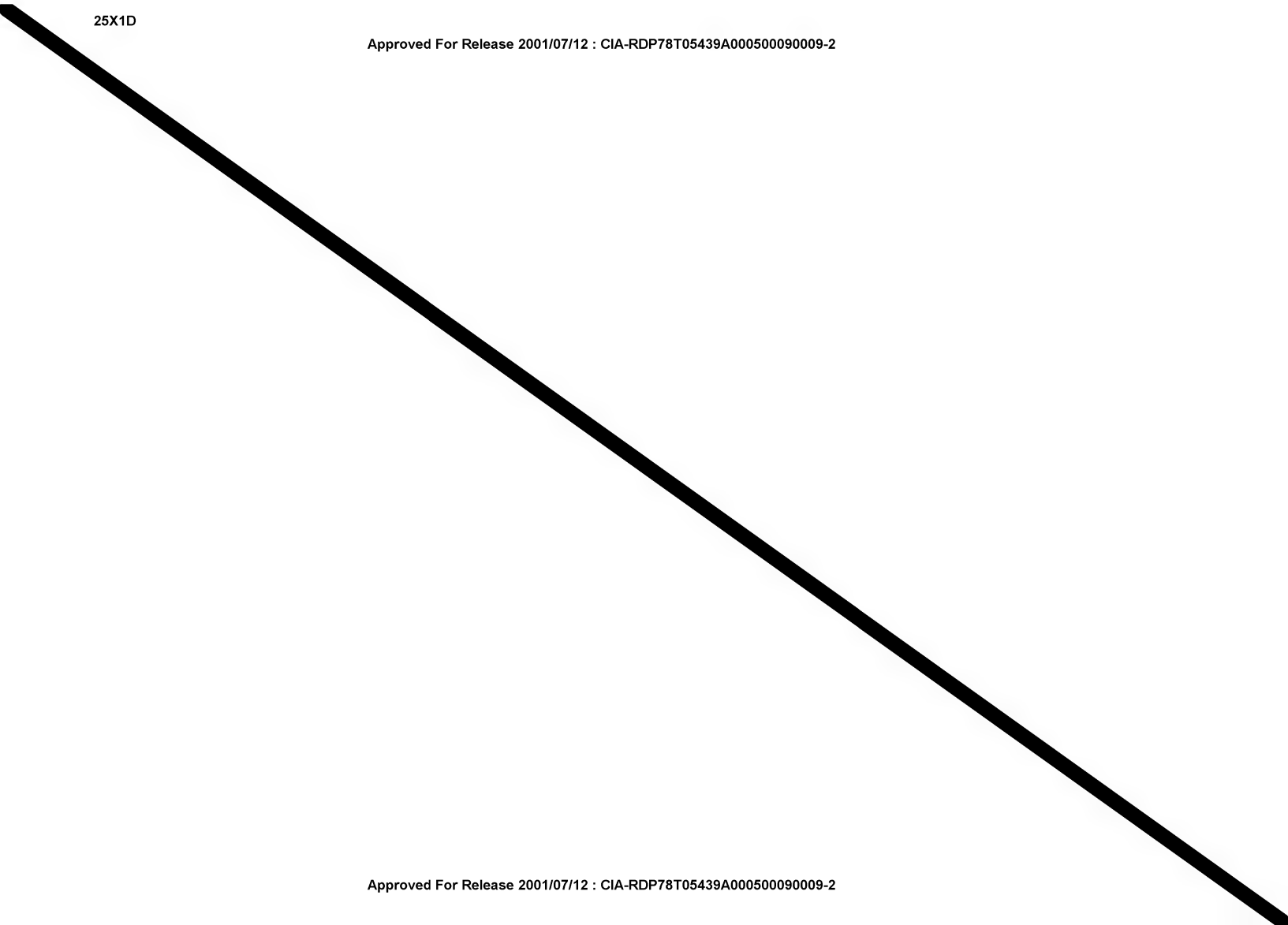

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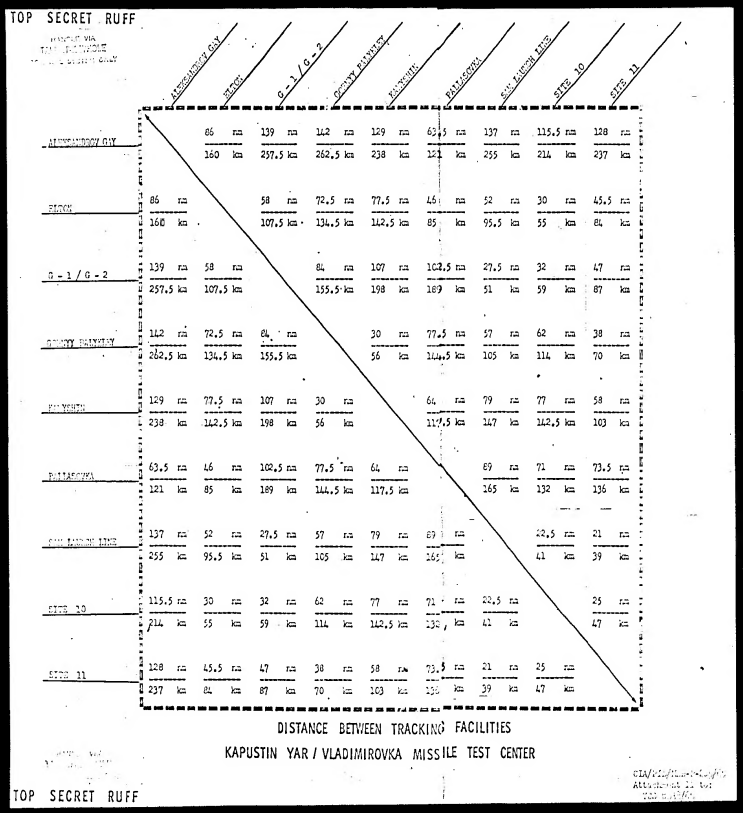

DISTANCE BETWEEN TRACKING FACILITIES
KAPUSTIN YAR / VLADIMIROVKA MISSILE TEST CENTER

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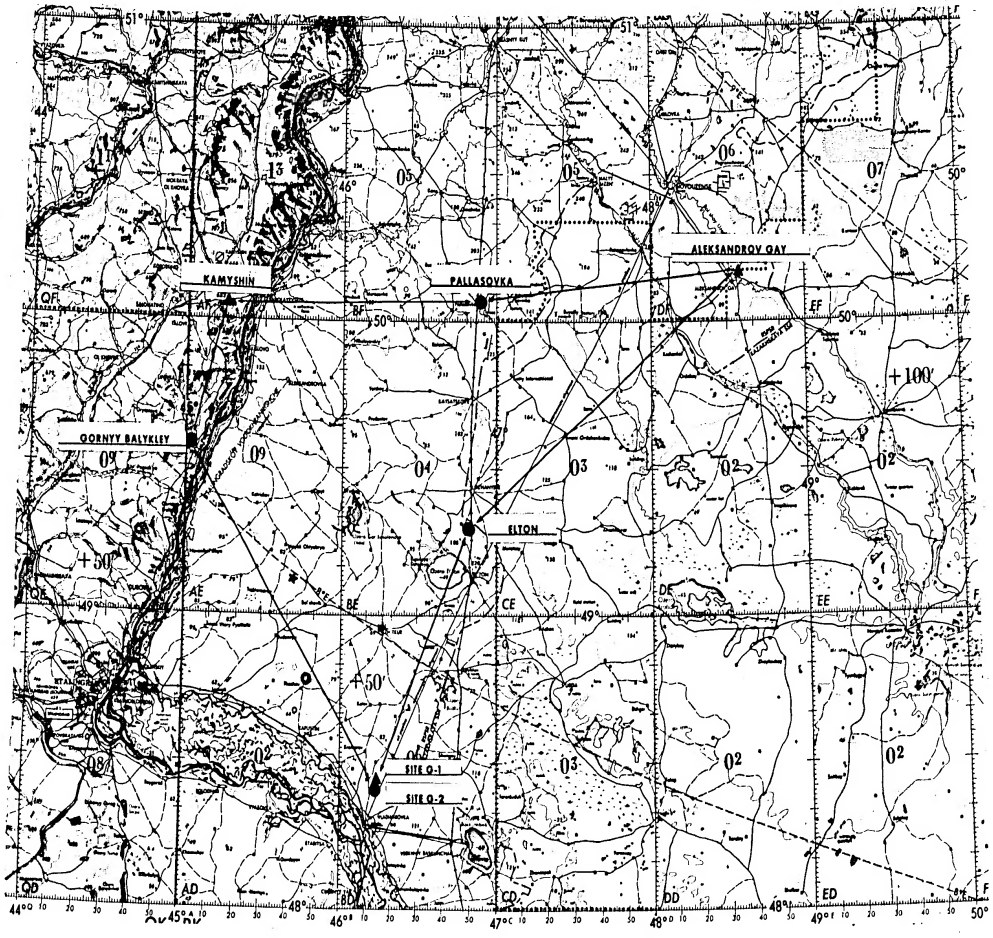
TRACKING FACILITIES

KAPUSTIN YAR/VLADIMIROVKA MISSILE TEST CENTER



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Attachment 1 to:
TCS 8019/65

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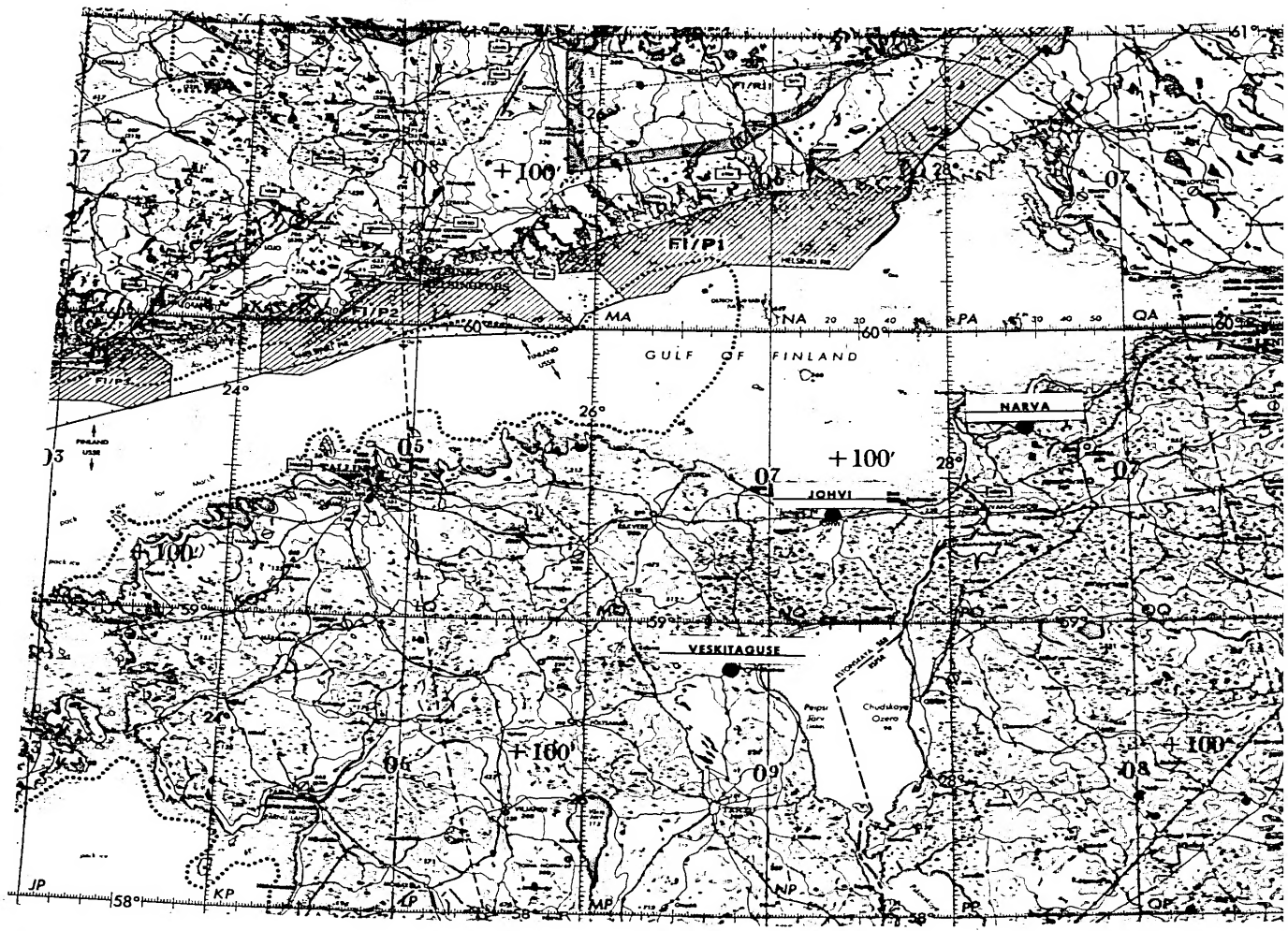
GULF OF FINLAND TRACKING FACILITIES



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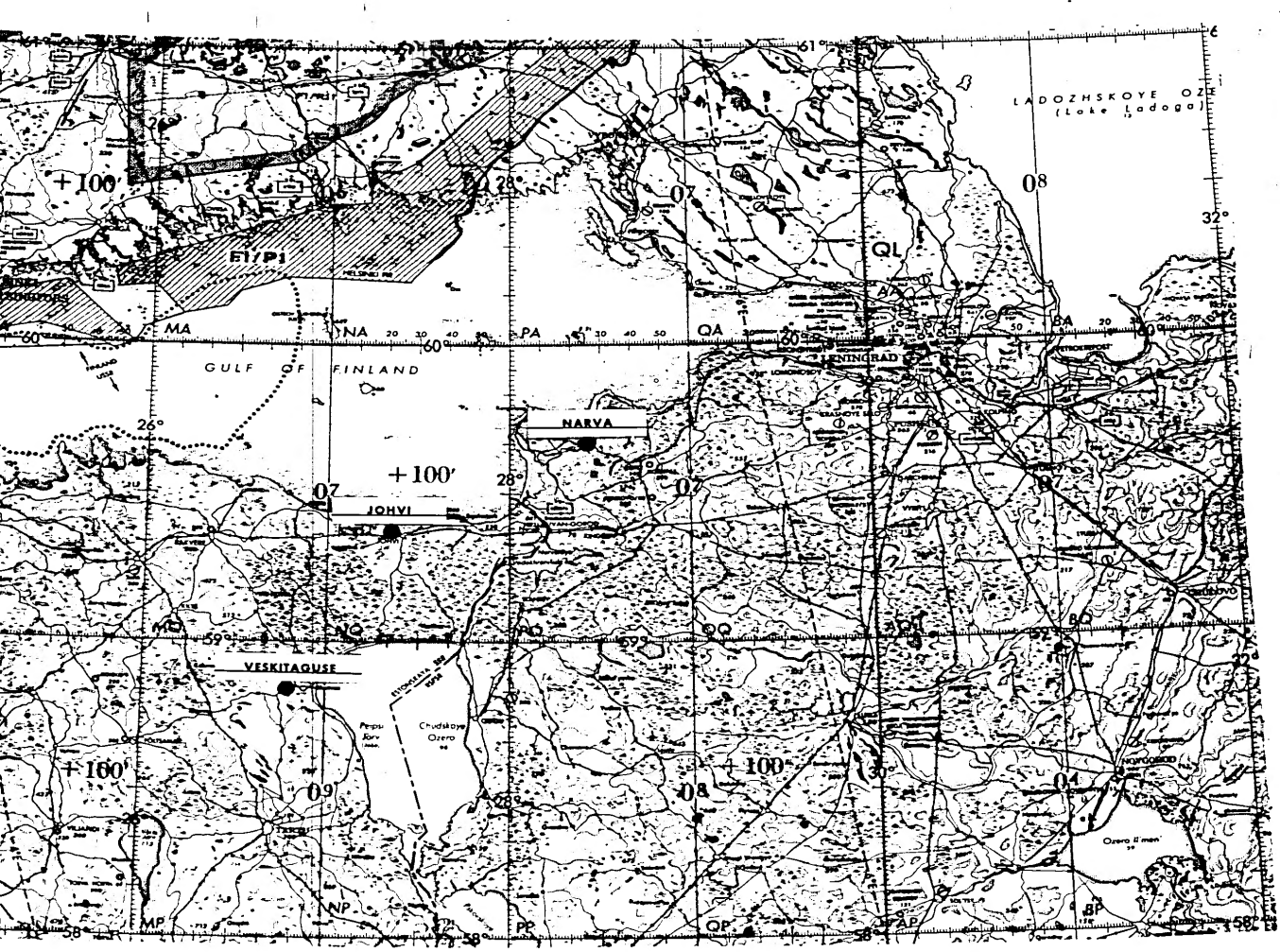
ULF OF FINLAND TRACKING FACILITIES



CIA/PID/MEB-P-199/65
Attachment 5 to:
TCS 8038/65